

REMARKS

Claims 1-48 stand rejected under 35 U.S.C. 102(e) as being unpatentable over U.S. Publication Number 2005/0146714 (hereinafter Kitamura).

Kitamura is directed to a pattern inspection apparatus. *Kitamura*, Abstract. The Examiner asserts that Kitamura discloses processing the received design information to provide a large number of measurement targets as recited in the present claims. *Office Action dated April 30, 2008*, page 3. However, Kitamura fails to make such a disclosure. Rather, Kitamura discloses a method including inspecting “a correction pattern that should not be formed on a wafer.” *Kitamura*, para. 0751. In Kitamura, an exemplary inspection pattern is a “kind of OPC pattern that is added to mask data in order to correct a pattern. The correction pattern is located adjacent to the pattern to-be-inspected.” *Id.* Although the correction pattern shouldn’t be formed on the wafer, it may occur as a defect. *Id.*, para 751. The “OPC pattern is converted into a reference pattern” and may be used “instead of [a] design pattern during inspection.” *Id.*, para 0753. Second edges are then “detected by using the reference pattern.” *Id.*, para. 0754. Thus, the correction patterns of Kitamura are not analogous to the measurement targets as recited in claims 1-48. Furthermore, Kitamura fails to disclose processing received design information to provide a large number of measurement targets as recited in claims 1-48.

Kitamura discloses setting a group of parameters called “recipe data” for a reference pattern prior to inspection of the reference pattern. *Kitamura*, para. 0401. Parameters of recipe data are input by an operator and include design data retrieval parameters, image acquisition parameters, and edge detection/inspection acquisition parameters. *Id.* The recipe data is entered into a reference pattern generation unit which then creates the reference pattern to be inspected. *Id.* More specifically, “the operator inputs recipe retrieval parameters (a device name and a process name, and an inspection mode) into the inspection unit.” *Id.*, para 0461. “The inspection unit retrieves the recipe database using the recipe retrieval parameters as a key and takes out the recipe data.” Then, in order to acquire the pattern image to-be-inspected, the inspection unit sets the image acquisition parameters to the image generation device and directs the image generation device to perform wafer loading, alignment, and condition-setting for the irradiation step.” *Id.*, para. 0462. The image generation device then “outputs the pattern image to-be-inspected (and its center position) to the inspection unit for each inspection unit-area.” *Id.*, para. 0465. Thus, the recipe data of Kitamura and the parameters it includes are used to generate

a reference pattern to be inspected and does not include target measurement parameters as recited in claims 1-48.

Not only does Kitamura fail to disclose target measurement parameters as claimed, but it also fails to disclose associating target measurement parameters to the large number of measurement targets as recited claims 1-48.

Because Kitamura fails to disclose both processing the received design information to provide a large number of measurement targets and associating target measurement targets to each of the large number of measurement targets, Kitamura fails to disclose each and every element of claims 1-48. Thus, claims 1-48 are patentable over Kitamura for at least the reasons presented above and the removal of the 35 U.S.C. 102(e) rejection against claims 1-48 is respectfully requested.

If there are any additional fees due in connection with this communication, please charge Deposit Account No. 19-3140.

Respectfully submitted,

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